

MICHIGAN FARMER, AND WESTERN AGRICULTURALIST.



"Agriculture is the noblest, as it is the most natural pursuit of Man."

VOLUME I.

JACKSON, MONDAY, MAY 1, 1843.

NUMBER 6.

THE MICHIGAN FARMER,
IS PUBLISHED SEMI-MONTHLY BY
D. D. T. MOORE, Editor and Proprietor.

TERMS:

One Dollar per annum,—payable in advance.
The Farmer is offered to Agents and Clubs at the following low rates.—Six Copies for \$3; Ten Copies for \$5; Fourteen Copies for \$10; Twenty Copies for \$15, and Thirty Copies for \$20. Subscriptions to commence at the beginning of the volume, and no subscription will be received for less than six months.

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COMMUNICATIONS.

For the Michigan Farmer.

AGRICULTURAL CHEMISTRY.

NUMBER V.

To AGRICULTURISTS:

ASSIMILATION OF CARBON.—[CONTINUED.]

From the foregoing estimates, we can form some idea of the vast amount of Carbon that is set afloat in the air, in the form of carbonic acid, by the human family in the process of respiration. But this constitutes only a small part of that with which the air is impregnated; for we have not as yet considered the carbonic acid that is expired by the various kinds of animals that inhabit the earth—nor that generated by the spontaneous decomposition of organic matter—nor that by the decomposition of carbonates—nor that vast quantity which is formed by the process of ordinary combustion.

When Carbonate of Lime, commonly called lime-stone, is exposed to the fire there is driven off nearly one half its weight of carbonic acid, and that which remains is called lime or protoxide of Calcium. Whenever vegetable products are consumed by fire, there is sent afloat in the air such a quantity of carbonic acid as will contain a sufficient amount of carbon to supply the demands of just such another amount of matter. For instance, when a cord of wood is burned there is generated gas containing that amount of carbon which would be required in growing just such another cord.

Thus we see that carbonic acid is being continually generated in vast quantities, and were there no provisions for its disposal, it would in the course of time accumulate to such an extent as to render the air unfit for the support of animal life. But, notwithstanding the vast quantities that are continually being generated, the proportion contained in the atmosphere is constantly about the same; and it is to the process of vegetation that we are indebted for its purification.

How is it known that growing plants absorb the carbon of carbonic acid? By confining a certain amount of it with a growing vegetable, we find that after a short time the gas is decomposed—the oxygen is left—the carbon has disappeared, and the plant has increased.

If this experiment is tried with a plant growing in water, which is impregnated with carbonic acid, and a bell glass be inverted over them, in a short time we will find that the carbonic acid in the water has disappeared, and the oxygen that was liberated by its decomposition may be found above the water within the glass. Even the fresh leaves, when separated from the plant, are not destitute of this power; when plucked, if they are put into a receiver containing water impregnated with carbonic acid, and then covered and exposed to the light of the sun, in a short time the gas will be decomposed, the carbon absorbed, and the oxygen set free. Any one conversant with Chemistry can satisfy himself of the truth of these experiments. The agency of light seems to be necessary for the assimilation of carbon; for we find that plants will not thus decompose this gas, and assimilate its carbon, when placed in the dark.

The quantity of carbon is increased on those lands that are cultivated; and this is the case when we do not put any of it on the land, but remove it therefrom in large quantities, every year, in the form of vegetable products. This we find to be the case with meadows and wood land, where we add none, but yearly take therefrom large quantities of carbon in the form of hay and wood. This carbon is received from the carbonic

acid of the atmosphere, through the medium of vegetation. Plants eliminate by their roots, juices containing carbon, and in this manner the soil receives more of it than it yielded to the vegetables. This elimination of carbon is most abundant just before and during the season of blossoming.

By the formation of carbonic acid there is abstracted from the air a portion of oxygen, and were not this again supplied, this element would continually be lessened in the atmosphere, and in the course of time it would be detracted to such an extent as to render the air unfit for the purposes of animal respiration. But we have seen that a wise providence has provided a means in vegetation to replenish this waste. Thus vegetation operates in two ways, in purifying the air and in rendering it fit for the support of animal life—first, by depriving it of a deleterious gas, and secondly by supplying it with oxygen, without which animal life would become extinct.

We have thus far spoken of carbonic acid as the only gas that supplies vegetation with carbon; but carbonic oxide and carburetted hydrogen may supply this substance to a very small extent.

Carbonic oxide is formed to a small extent by the combustion and spontaneous decomposition of those substances that contain carbon. Carburetted hydrogen is formed by the natural decay of vegetable products. When shallow water is mixed with vegetable matter, this gas is generated during the warm season. By watching such pools, it may be seen to rise to the surface in the form of small bubbles; and by inverting on the surface, a glass filled with water, it may be collected. This gas, when mixed with the atmosphere in certain proportions, and set on fire, occasions terrible and disastrous explosions in mines.

As yet I believe there has not been sufficient experiments made to ascertain what part they are capable of performing in the process of vegetation. If they yield any carbon to plants, it must be a very small proportion, for they are generated in a very limited quantity, compared with carbonic acid, and were there no provisions made for their consumption there would be no appreciable increase of their quantity in the atmosphere, for centuries.

JOHN McLEAN.
Jackson, April 25, 1843.

For the Michigan Farmer.

MANURE AND MANURING.

MR. EDITOR:—In no point of equal importance are the farmers of Michigan more culpably remiss, than in economy in saving and increasing, and skill in the application of their manures. Having received from the hand of Nature, a soil of uncommon depth and richness, they seem content with the abundance with which their labors are at present rewarded, without reflecting that “always taking out, and never putting into, the meal tub soon comes to the bottom”—or, in other words, always extracting from and never adding to the fertility of the soil, soon renders it cold and unproductive; and that it is much easier to preserve our lands in their primitive goodness, or even increase it, than to reclaim them after they become completely impoverished and worn out. It has been truly and wisely said that Manure, judiciously applied, is to Agriculture what the Steam Engine is to Commerce;—in fact, it is the foundation of all profitable and successful husbandry.

As the season has arrived when farmers are busy in preparing their grounds for spring crops, let them by no means—on account of the lateness of the season or the poor condition of their teams (arising from the late severe winter and the want of sufficient fodder) and the press of business on hand—think that the clearing of the yards and sheds about their premises of manure, is of minor consequence and can of course be most properly dispensed with; but let them be sure and haul out all the manure they have (even if they should not plant and sow quite as many acres,) and they will be repaid more than four-fold in the returns which will be received, and its influence will not be lost upon succeeding crops. ‘But,’ says one ‘the manure of our yards is not yet fit for use, being composed mostly of the refuse fodder and litter thrown to our stock during the past winter, and not sufficiently rotted or decomposed.’ This is a mistaken idea, for in the use of long or unfermented manure in its crude state, its fertilizing properties are all imparted to the soil; but, on the contrary, when suffered to lie about yards or fields, exposed to the scorching heat of the sun or the drying effect of winds, during the process of fermentation and decomposition, a portion at least of those gasses which form the chief food of vegetables evaporates and is carried off in the atmosphere. Another objection to the use of long manure may be that it serves to clog and prevent the free action of the plow. This may be the case when we wish to apply a heavy dressing,

but in such cases a lad with a rake might follow and haul a sufficient quantity into the furrow. I have seen straw taken directly from the barn, scattered into the furrow, and plowed in—which, on being examined two or three months after, was found to be so far decomposed as to form an excellent manure for a crop of corn.

When such manures are applied they should be covered, to facilitate the process of fermentation. Manure, when drawn out to be applied, should be thrown into piles (a full cart or wagon load being sufficient for four or five) at convenient distances, and so remain until necessary to be spread for ploughing.

As to the quantity necessary per acre, regard should be had to the present state of the soil, the crops to be grown, &c., it being almost impossible to have land too rich for a heavy crop of corn—while, for a potatoe crop, a soil may be so highly manured as to cause an undue growth of vines, and but a light yield of potatoes. Observation and experience should be our guides on this point.—Never draw out manure, in fall or winter, to lie until the following spring, as, by being exposed to the bleak winds of winter, much of its strength is lost. The practice of manuring hoed crops in the hill, especially corn, is in general not the best, as the roots of corn grow as long or longer than the stalks, they soon extend beyond its influence, particularly the smallest fibres, which are the principal receivers of the food that contributes to the growth and maturity of all plants.

Top dressing, or leaving manure spread upon the surface, without ploughing or harrowing afterwards (unless for crops that cause a dense shade, or meadow land,) should not generally be practiced, as the unchecked influence of the sun in a great measure destroys the effect which would otherwise be produced.

In conclusion, I would say, let our farmers pay more attention to manuring their lands, cultivate a little less and do it more thoroughly; and thus they will be more adequately repaid for their labors, and improve the fecundity, beauty and value of their farms in a compound ratio. And let them be sure to note down the mode by which they succeed the best, in the various departments of their business, and communicate it through the columns of our Agricultural Journal, for the benefit of their brother farmers.—Thus we shall mutually aid each other, and render essential service to agricultural pursuits.

J. A. S.

Jackson County, April 20, 1843.

For the Michigan Farmer.

THE PEACH.

MR. MOORE:—As the time for transplanting the Peach tree, or the time in which it is usually transplanted is at hand, it may not be out of place to offer a few remarks on that and other matters connected with the successful culture of the Peach.

And first—the autumn is far preferable to the spring season for transplanting the tree. The earth has an opportunity to resume its natural state around the roots, before the young tree commences growing the following season, and is thus enabled the better to supply them with proper food to sustain their growth. Any person can easily detect the difference between trees transplanted in autumn and those transplanted in spring. Those of autumn will come forward with a vigorous growth, while those of spring transplanting will grow very little, that season, and have a sickly aspect all summer.

As respects the location of the peach tree, it should be as elevated as possible. This will give it two advantages over a low situation. It will not put forth its blossoms so early, and thereby be liable to be cut off by late frosts; and when such frosts do occur, while blossoms in low situations will be entirely blasted, those in elevated situations will not be injured. This was the case the past summer.

This result is in perfect keeping with the harmonious law of nature, and may be explained on the same principle the phenomena is, which one witnesses on visiting a meeting house (with a gallery) in cold weather.—While those from the lower part of the house will be suffering from the cold, those in the gallery will be sufficiently warm. The heated air, being lighter than the cold, rises to the upper part of the room, and the cold air seeks the lower part. And it is for the same reason that while the feet of a person will be cold, in a room warmed by a stove, the upper part of the body will be sufficiently warm.—The air obeys the same law, when unconfined by the walls of a room. The cold air at night falls to the lower portions of the earth, and being deprived of the influence of the sun, the moisture contained therein is congealed to ice—while the tops of hills are surrounded by a warmer atmosphere; and hence the result we witness in the frosts of spring and summer.

During the frosts of last June, most people will probably recollect that while vegetation was entirely destroyed in low situations, that on high elevations was uninjured. This explains the fact, that while the leaves on the lower branches of trees and shrubs will be destroyed, those on the upper part and top will remain green.

Perhaps some may think that because an elevated situation will delay the blossom, it must therefore be more subject to be frozen. I simply remark, this is the result of being in an exposed situation to the winds, and when both are under the influence of the sun, the low ground is much the warmest. Chemists tell us that under the burning atmosphere of

India, where frosts are never witnessed, water is frozen by being placed in pans one eighth or 16th of an inch in depth, and placed in an elevated situation through the night. The one is the effect of the atmosphere passing rapidly over it, thus carrying off the heat contained in the substance, just as the breeze from a fan cools the face in a hot summer's day—the other is the effect of the atmosphere, in a condensed state, and possessing less heat than the strata above it.

This is not the case however, the farther we go from the surface of the earth. When the warm air ascends from the surface of the earth, it reaches an altitude in which the air is less dense than it is near the surface, and then it ceases to rise farther. Thus high mountains, under a burning climate, while the heat is intense at their bases and for some distance up their sides, their summits are clad in perpetual snow.

The peach may be successfully grafted on any kind of tree which produces stone fruit. It is sometimes grafted on the wild plum, wild cherry, and even butternut. The advantage of such grafting is, the roots of those trees are not subject to the attacks of worms which destroy the tree. Those predators may be repulsed, by mixing salt with the earth around the roots of the peach tree.

The native country of the Peach is not satisfactorily known. In its earliest history it was cultivated in Persia.

Yours, E. WOODEN.
Pulaski, Mich., April 4, 1843.

Horticulture in Indiana.

Among the good things in Hovey's Magazine for March, is a letter from the Rev. H. W. Beecher of Indianapolis, on the progress and state of Horticulture in Indiana, which we have read with great interest. He gives a flattering picture of the present condition of Horticulture in this new state, the climate of which is admirably adapted to the growing of fruit to perfection. At a fair in October last, at Indianapolis, from 55 to 60 varieties of apples were shown, and forty-three new seedlings competed for a premium, three of which were named the Tariff, Red Jacket, and Osceola, and specially recommended for cultivation. The number of seedling apples in the state, is very large, and some of them are esteemed more highly than the old standard fruits. There are 18 nurseries in the state, and apple trees sell for 10, and pears for 20 cents. Almost every farm has an orchard, and pears are beginning to be much sought for. Much attention is also paid to gardening.—The Hort. Society has offered a premium of \$50, for seedling apples. Other premiums to encourage gardens—the obtaining of choice fruit trees,—introduction of hardy shrubs, flowers, &c. "Our great design," says Mr. B. and a most laudable one it is—"is to awaken in the body of the people—among farmers, artizans, and men of small means, a taste for fruits and flowers, and to fill the state from the beginning, with the most select varieties." We commend their example to our friends in Michigan, Illinois, Wisconsin, &c.—*Albany Cultivator.*

From the American Agriculturist.

LUCERN FOR SOILING.—SUGAR BEET.

MESSRS. A. B. & R. L. ALLEN.—I noticed in the last number of your paper, an article on the cultivation of rye, vetches, peas, and corn sown broadcast and cutting them for soiling stock. Now I should much prefer lucern to any of these, for an acre of it will keep five cows from the middle of May to the middle of October, if cut and given them when green, and it may be cut five times for soiling, and three times for hay during the summer. It will produce three tons of hay to the acre the first cutting, and one and a half tons each succeeding cutting.

It flourishes most luxuriantly in deep, rich friable loams, though it will also thrive in any good dry soil; but the land must be kept free as possible from weeds, otherwise its growth will be greatly impeded. No land is to rich for it and the soil must be deep and dry, otherwise it is useless to attempt to grow lucern. The potatoe crop heavily dressed with long manure is a good preparation for it, and the ground should be plowed as deeply as possible, as it is a tap-rooted plant, and in a loose sandy soil the roots have been known to run to the depth of four feet; the seed should be sown from the 1st to the 15th of May. It may be sown on a crop of wheat, rye, or barley; twenty pounds of seed should be allowed to the acre, be put in with a light harrow, and the operation finished with the roller. The ground should be harrowed every spring to destroy grass and weeds, and occasionally top-dressed with bone dust, ashes, or rotted manure, as best suits the convenience of the farmer. It is an excellent food for horses and cows whether in a green or dry state; and when well laid down and properly attended to it will last ten years. It is quite as hardy as red clover, and much more valuable.

I have raised the sugar beet for several years, and think them very valuable food for stock, milch cows particularly, making them give an abundance of the richest milk, quite equal to that produced from grass; they are also very good for hogs. I have fed them to my breeding sows and store hogs, together with the wash of the kitchen, and they are now in as good order as any farmer need desire; but a Berkshire will get fat where a razor-back would starve. Respectfully, W.

Treatment of Soil.

MR. SESSIONS of Iona Mich., makes some inquiries respecting the management of his farm. It was originally covered with white, yellow, and burr oak. Part is sand, another part clay, and another part gravel, or stony. From this last part, the stones of suitable size have been drawn for fencing; the cobble stone is to be removed for building.—The grounds are new, and in wheat. Mr. S. asks whether clover would succeed on such a soil—whether plaster would be useful—and to what crops such a soil is best adapted? On one side he has rich alluvial bottoms, and on the other timbered swales; and he asks, whether these may not be made available to the improvement of the farm, or fitted for cultivation without too much expense?

There would seem to be no difficulty in the treatment of such a soil, as that described by our correspondent. The sandy and gravelly parts are of course dry, and the clay division, if naturally wet may be made so by draining. There should not be too much anxiety to get rid of all the fine or small stones on the gravelly part, as if of lime or granite, they contain substances essential to fertility, and which they furnish by gradual decomposition. Lands have frequently been injured by a too close removal of small stones. We should think that clover could not fail on such lands, and that plaster would be highly valuable; certainly on such soils in western New York, clover and plaster would be the first resort of the farmer. As to crops, if clover and wheat will succeed, Mr. S. need not fear that others will fail; and when exhausting crops are produced, they must be met by corresponding additions of manure. If the alluvial or swale lands, are wanted for culture, the first step is to drain them thoroughly, and then they will be found the most productive of soils, particularly in roots and grasses. If they are relied upon as sources of manure, or for the means of fertilizing the other parts of the farm, the swamp muck or vegetable matter should be made into compost, by mixing with it stable or barn yard manure, in the proportion of two-thirds muck to one-third manure, the whole allowed to ferment, and then after being thoroughly shoveled together, it may be applied as wanted.—*Cultivator.*

Necessity of a Change of Crops.

MESSRS. EDITORS.—In a conversation the other day with an intelligent friend, I stated the remarkable fact, that if an animal were to be confined to one particular diet for a certain number of days, sickness, and eventually death, must be the consequence; when he immediately applied the *rationale* of the fact to a subject at once so highly interesting and natural, that I cannot help recording it. "Then," said he "this shows at once the necessity of a change of food to the crop; or which is the same thing, a change of crop to the soil—a rotation of crops as it is called." Now in this little remark, a volume is thrown open to our perusal, and by studying it I believe we may derive information and advantages at present unknown and unappreciated; and in return for the many useful hints and very pleasant ideas that I am continually reaping and garnering up from the perusal of your paper, I offer the above, in grateful acknowledgment.—*Farmers Cabinet.*

HORTICULTURE, the attendant and embellisher of agriculture, which provides so many palatable and healthful additions to the substantial produce of the field, and correctors of the undue stimulus and acrimony of much animal food, merits all the fostering care which an uncorrupted and yet educated and refined taste has ever extended to it. A well cultivated garden, in due alternation of vegetable fruit and flower, gives us poetry without its illusions—nature divested of her ruggedness, and art of its constraint.—*Dr. Bell.*

MICHIGAN FARMER.

JACKSON,

MONDAY, MAY 1, 1843.

Our Paper.—An Appeal to the Friends of Agriculture in Michigan.

THE present number completes the first quarter of the MICHIGAN FARMER, and we embrace the opportune occasion it affords to make a few remarks relative to its publication. We ask the indulgence and earnest attention of the reader, and will endeavor to be as brief as the subject will admit.

In commencing this journal we were not altogether ignorant of the importance and responsibility of the position then assumed, or of the difficulties which would, for a time, impede the success of our enterprise;—but it was with a firm determination to use every exertion which our means and humble abilities would permit, to make the Farmer alike **VALUABLE** and **INTERESTING** to the Agriculturists of the Peninsular State, and thus render it **WORTHY** of their **CORDIAL SUPPORT**. And we confidently believed that there were many intelligent and enterprising men, in different sections of this noble agricultural state, who would second our efforts by giving their aid and encouragement to sustain the enterprise. This belief has been verified.—Many are awake to the importance of sustaining an agricultural journal published upon our own soil, and are using laudable exertions to insure this paper an adequate support.—And though (owing to the difficulty of the times) pecuniary embarrassments have greatly limited our efforts thus far, still the confidence expressed in our journal by many of the most influential men in the State, is highly encouraging—while the determination manifested to sustain it, stimulates us with renewed energy for its continuance.

But our paper is yet far from being what it should be, and what we wish to make it.—We desire and design to improve it in many respects. In its present publication we have other and higher objects in view, than mere dollars and cents—although pecuniary reward must necessarily be considered. We have no desire to make money on the paper for a year or two to come: for the profits we look three or four years ahead, when (if properly improved and conducted) it will have from three to five thousand subscribers.

In order that we may be enabled so to improve the paper as to make it more creditable to the State, and beneficial to its patrons and the cause of Agriculture, *we appeal to every farmer and friend of agriculture in Michigan,*

to aid us in promoting the enterprise. That they may be assured of a proper application of their aid, *we hereby pledge our word to improve the Farmer as fast as possible for a year to come*—and to use the receipts of the office solely for that purpose, after defraying our necessary expenses. Judging from present indications, we think we shall be able to considerably improve the paper at the close of this volume. But we desire to do so at the end of the first six months. We wish to enhance its usefulness by obtaining additional contributors to its columns, and embellishing its pages with appropriate engravings. Will not our patrons and friends continue their exertions to extend the circulation of the Farmer, and thus render essential aid in furthering its improvement? If all would do what they can conveniently to obtain subscribers, we could soon greatly improve the paper, in manner and matter.

Reader, by way of doing *your* part, please send us the amount of your own subscription and obtain one additional subscriber.

The Wheat Crop.

Notwithstanding the uncommon backwardness of the season, the Wheat Crop looks exceedingly fine and promising in this section of the country. From present indications the farmers of Michigan may reasonably expect a large and unusually abundant yield at the coming harvest. Far more ground is cultivated in wheat the present year, in this and other western states, than at any former period; and it is believed the crop will greatly exceed all precedent, in productivity as well as quantity. We trust that this belief will be verified, and that the price of the staple production of our state will be such as to amply remunerate those engaged in agricultural pursuits.

PLANTING CORN.—Practical farmers, who have tried experiments in raising Indian Corn in this state, by planting the hills at various distances, assure us that this crop will yield a much greater amount when the hills are four feet apart, each way, than when planted at a less distance. Corn is not so productive in this state, when planted closely, as it is in the eastern states; but when planted at a proper distance, and well cultivated, it yields abundantly. As the season for planting is near at hand, this fact may prove beneficial to some of our subscribers.

See advertisement of "Ypsilanti Horticultural Garden and Nursery," published on our last page.

Work for the Month.

MAY will this year be an unusually busy month with the farmer—perhaps the most so of any during the season of active farming operations. Owing to the lateness of spring, much of the usual labor for April must necessarily be performed this month. The farmer has much to do, in a limited time. It is therefore necessary that he should perform the ordinary spring work as soon as possible, and drive it ahead, instead of allowing it to crowd and perplex him.

Farm stock of most kinds will require some attention until the middle of the month. Working teams, in particular, should be well fed and cared for, in order to accomplish the ordinary spring work.

The preparation of the ground for spring crops will employ most of the time during this month, as the condition of the earth has been such that but little ploughing, &c. has yet been done. And it should be remembered that but a few days in the spring often makes a material difference in crops; also, that teams will perform more work while the weather is cool, than after the warm season arrives.

Spring Grains should be sown as soon as the ground is sufficiently dry for cultivation. Grain which ripens early in the season, is generally much better than that which ripens late; hence the earlier it is sown, the more profit will be derived.

In the preparation of ground for Indian Corn, there is much diversity of opinion and practice among practical farmers in this state. Some prepare their land by ridging, while others plant upon the furrow. We are of opinion that this crop is most productive when planted on the furrow, or a comparatively smooth surface—except in wet and heavy soils, which should be ridged. Our correspondents are invited to give their views upon this and other points connected with the culture of Indian Corn, in this state.

Now is the time for getting out manure, (if that important labor has not already been performed,) whether it is to be ploughed under for corn and other crops, or spread upon meadows, &c. for a top dressing. This is an important matter, which no prudent farmer will neglect. [An excellent article on this subject, from one of our able correspondents, will be found on the second page of this number. Read it.] Plaster should be sown this month, according to the opinion of many agricultural writers.

The GARDEN should receive a due share of attention and labor. Let no one neglect

to have a well cultivated garden—which will prove alike profitable and ornamental.

The ORCHARD also demands attention.—This year the month of May will be the best time for grafting, in this climate. Farmers would be greatly benefitted by superintending the grafting of their trees, thus preventing the deception and fraud too frequently used by itinerant horticulturists. Experienced horticulturists tell us that the most favorable time for scions to take well, and obtain a good growth also, is when the buds are just bursting into leaves.

In conclusion, we would strongly urge upon farmers the propriety of doing their work well, and of cultivating their fields in a perfect and thorough manner—even if they do not cultivate a great number of acres. It is far better to let some fields remain uncultivated, than to attempt the cultivation of much land with little labor. Here lies the great secret in farming—for any man who has tried both methods, must be satisfied that it is better and much more profitable to cultivate a little land well, than a great deal imperfectly.

Corn-Stalk Sugar.

The experiments already made in different parts of the country, in the manufacture of Corn Sugar, give abundant evidence of the ultimate success and profit of the business.—We are desirous of encouraging among our farmers, the introduction of every branch of industry which will tend to render us independent of foreigners. And we are glad that what we have heretofore published on this subject is inducing many to try experiments. We would however urge our farmers to try the experiment upon a small scale, this year. This will test the question in Michigan, and prove whether we can manufacture our own sugar.

The April number of the Albany Cultivator discusses the experiments that have been made, and gives directions upon all the essential points in the cultivation of the Corn Stalk and the manufacture of Sugar from the same. We copy the most important point, at this season,—the manner of growing the corn—and shall endeavor to publish the whole article in a future number. We think the corn should not, in this state, be planted as thick as stated in the extract here given:

In planting corn for sugar, two objects must be kept in view—the securing the greatest growth of stalks; and the prevention of the formation of ears. The kind of soil required for a great growth of corn, is so well known that it is unnecessary to describe it here. It must be rich, and should be friable, that it may be cultivated easily. A heavy

clover lay, manured, and then turned over, rolled, and the surface harrowed fine, makes a good soil for a corn crop. Mr. Webb, the most successful manufacturer of sugar thus far, directs that the corn be drilled in rows north and south, that the influence of the sun may be felt as much as possible, the rows to be two and a half feet apart, and the plants in the rows not more than two or three inches apart. This thick planting on a rich soil gives a great stand of corn, and in a considerable degree prevents the formation of ears, as ears cannot be expected where the corn is as thick as is here directed. Mr. Blake of Indianapolis, made an extensive experiment last year, and from 4½ acres produced about 280 gallons of excellent molasses. He planted his corn, or rather drilled it in rows four feet apart, plants close set in the rows, but distance not stated. It is probable in planting corn for sugar, something should depend on the variety selected; as it is evident the smaller northern kinds would require closer planting than the tall southern or western kinds.—We have not learned that any experiments have been instituted to test the comparative value of the several varieties of corn for sugar; though it is certain that large stalks yield more juice than small ones, in proportion to their size.

GROUND PLASTER.—For the information of farmers in this vicinity, we would state that a superior article of Ground Plaster (from Onondaga county, N. Y.) can be obtained at the warehouse of P. C. Lawrence, Esq., in Leoni. It is sold by the barrel, at Detroit prices—transportation added.

We have frequent complaints that our papers are not received by subscribers.—The fault is not with us. Our paper is published regularly and *punctually*, on the 1st and 15th of each month, and *invariably mailed* on or before the day of publication.

THE WHEAT CROP IN ILLINOIS.—The Alton (Ill.) Telegraph, states that wheat in that neighborhood has been winter-killed. It adds: "How far this calamity has extended throughout the State, we are unable to say. It will prove to the Agricultural portion of the community a sore loss, as it is their *main dependence* to raise money."

GRAFTING.—Melt a little beeswax and tallow together, and if it is at hand stir in a little powdered chalk, and while hot dip in some strips of old calico or cotton cloth. Tear them into strips of such width as may be most convenient to wrap around the stock and scion. Let the stock and scion be covered, so as to prevent the escape of sap or the introduction of water, and the work is done. This will, I think, be as good as the surgeon's adhesive plaster, or any more complicated or expensive grafting wax.—*Cult.*

SUMMARY.

LARD OIL.—The Cincinnati Gazette states that four manufactories in that city had made during the past year, 116,944 gallons of lard oil—the value of which was \$73,089. The quantity of lard required was 7,302 barrels.

EXTRAORDINARY WEATHER.—In the north-western part of North Carolina all the peach, plum and apple trees have been killed by the late frosts. On the 23d ult the thermometer fell at Greenville to 16 degrees above zero, and snow covered the mountains to the depth of 6 inches.

REVIVAL IN ROCHESTER.—The Rochester Democrat gives the cheering intelligence that more than 700 members have been added to the several churches in that city since the 1st of January.

THE Adrian Watch Tower is out for LEWIS CASS for President, and JOHN S. BARRY for Governor—subject to the decision of the Democratic National and State Conventions.

THE Mormons are about building a new city at Shok-o-kon on the Mississippi, three miles from Burlington, Iowa.

NEW STEAMERS.—The Cincinnati Gazette says there are now fifteen Steamboats either under contract or on the stocks in the shipyards of that city, and negotiations are going on for several more.

Navigation is open between Detroit and Cleveland.

THE Legislature of Maine, at its recent session, passed a law declaring that every person, of good moral character, might practice law in that state.

Baltimore is building thirteen new churches. She has eighty already.

SPECIE. The Ashburton, at New York from Liverpool, brought \$250,000 in specie.

It is estimated that there is enough Territory in the United States, to comfortably accommodate from two to three hundred millions of inhabitants.

New York Market—April 19.

FLOUR.—The market is without any change. Sales at \$5 37½ a \$5 50 for Genesee; but little Western flour in market—about 1,500 bbls. arrived yesterday from Albany. The sales of Southern flour are not large but prices firm.

GRAIN.—No Corn in to-day; sales yesterday of 2,000 N. River at 55 cents. Rye 60; Oats, N. River, 27 a 27½ c; Virginia 22 a 23.

ASHES.—The market is quiet. Pearls have declined, but no sales; Pots \$5 25—Pearls, \$6 50.

SEED.—Clover, fine, is selling at 9 cents—Timothy 19 a 17 50.

PROVISIONS.—Mess Pork has advanced; sales of new at \$10; Prime, 7 87 1-2 a \$8, Old Mess, \$8 76 a \$9—Prime, 7 75 a \$8. Sales of inferior Butter at 5 1-2 cents.

BEESWAX.—Continued sales at 29 a 32 1-2 cents.

TALLOW.—Sales of city rendered at 7 c.

SELECTIONS.

From the Central New York Farmer.

Cause of Rust on Wheat.

MESSRS. EDITORS.—In examining several agricultural works, I have noticed many lengthy articles on the cause of rust on wheat, but none of them fully agree with my views of the cause. My views may be incorrect, as I have had but little experience in wheat growing, but I think most of farmers will agree with me on reflection. A year or two ago my curiosity was excited by one of my neighbors observing to me that there was something very extraordinary in his wheat, that he had two pieces adjoining each other, one of them was so rusty that it was not worth harvesting, although on as good ground as the other, while the other was entirely free from rust. This led me to enquire of him whether the soil was the same, whether one was not in a more exposed situation to the wind, whether it was the same kind of wheat sown, whether it was sown at the same time. I ascertained that it was the same in every respect. At last I asked him whether it was all manured alike. He replied that the part that was rusty he manured heavily. This led to the inquiry how the manure could thus affect it. I came to the conclusion that rust is occasioned by a rapid flow of the sap, occasioned by a warm rain on fresh manure—that affects the flow of sap, which occasions it to flow so profusely that it bursts the outer bark, and allows the sap to ooze out and dries on the leaf which makes the rust, consequently the sap leaking out in every direction, the kernel is not supplied, and shrinking is the consequence. On examining the leaf, I found that the bark was ruptured under every spot of rust. One other case came to my notice last year, which confirms me in my opinion. One of my neighbors had as he thought a very favorable piece of ground for wheat, as he had literally covered it with manure. It grew very fine, and two weeks before harvest it bid fair for thirty bushels to the acre—but about the time it was in the milk, there came a warm rain and a warm sun after it, and as it is said, the rust struck it, and at harvest it was not worth cutting. Again you will generally see wheat rust the most where it has the most rapid growth—you will see it in rich sandy land—around stumps on new land, and on fire beds, where the timber has been burned, (if it is in the field at all.) It is frequently a foot taller than that which is not more than a foot from it. If it was any thing in the rain adhering to it, why would not the whole field be rusty, or even within one foot.

Again you will seldom see wheat rust in a cold dry summer, and small growth, when the bark is tough and hard. It will probably be asked why the bark does not burst before this time, when it is in the milk. I would not give a decided opinion, but it is probable that the sap is not as limpid while in the milk as before, consequently, there would be more obstruction in the circulation, which would cause it to burst—that the straw near the head begins to dry and will not allow so rapid and abundant flow of sap. I would not advo-

cate that land must be very poor to raise wheat, I would have it in good heart, and not sown to wheat under one or two years after a fresh coat of manure is put on. JEFFERSON.

Preparation of Corn.

We publish with pleasure the following communication from a practical farmer, upon the preparation of seed corn. His mode strikes us as being admirable in its design.—The tar upon the surface of the corn, causes the coperas in its undissolved state, to adhere to it and is there more firmly bound by the articles used as a dryer.—*Amer. Far.*

Seed Corn.—The following method of preparing corn for seed, has been pursued by the subscriber, with uniform success, for several years, to prevent its destruction after being planted, by fowls, birds, or even hogs.

Take one bushel shelled corn in a basket, and immerse it in water, so hot as scarcely to endure the hand in it—the corn to remain in the water until thoroughly warmed : rinse out the basket with the corn to drain ; have then ready some suitable vessel in which to pour it, and put thereon a pint of tar, well warmed, stirring it immediately, until each grain is coated with tar, which will easily be accomplished while the whole is warm, (and this is the whole design in warming them)—then have 1-2 lb. of coperas ground or finely pulverized, thrown upon the tarred corn and well stirred ; then dry the whole by mixing slackened lime, ashes, plaster, or gypsum therewith, when it is ready to plant.

This coating of tar, coperas and lime, &c. is exceedingly unpleasant to the taste, which is the cause of its being free from depredation and its unpleasantness will not be affected by the moisture of the ground.

I have kept what has been left after planting for 2 or 3 weeks, and then used it for re-planting; it would vegetate well, but not so quickly.

I have also thrown what has been left from planting, of this prepared corn, where pigs and fowls had free access to it, without their eating a grain. It looks very dark and unsightly in appearance, but it nevertheless comes up and grows well.

JAMES C. ATLEE.

MAKING MANURE.—Asa Barton, in the Maine Farmer, says that he converted straw, corn stalks, and potatoe tops, into good manure in fourteen days, in the spring of 1841, only by heaping them together, and mixing unslackened lime with them. He used six casks of lime, and had fifty loads of good manure. The loads were such as farmers carry, a large half cord to the load.—*Cult.*

THOSE who wish to raise bountiful crops of grass, must not be parsimonious of seed; for be sure, there will not be more spears of grass than there were grass seeds sown. Orchard grass combined with clover, has commended itself much to many who have tried it; and in some soils it is found to answer better than timothy. Some say, the more kinds of grass seed sown together, the more pasture and hay will be produced.—*Far. Cabinet.*

From the Farmers' Cabinet.
The Potatoe.

It is, perhaps, not generally known to our readers, that in the potatoe there are two parts, which, if separated and planted at the same time, one will produce tubers fit for the table eight or ten days earlier than the other. This fact has fallen under my own observation, and is the plan I now pursue in order to obtain an early supply for my table, fine and very mealy. The apex or small end of the potatoe, which is generally full of eyes, is that part which produces the earliest—the middle or body of the potatoe produces later, and always large ones. The butt or navel end is worthless, except for feeding stock, and, if planted produces very different small ones, and often none at all, the eyes, if any, being imperfectly formed. The potatoe being cut two weeks before planted, and spread on a floor, that the wounds may heal, separating the small end from the middle, and cutting off the navel or butt, the body or middle of the potatoe is then divided into two pieces lengthwise, taking care to have always the largest and finest selected, being convinced that if none but large potatoes are planted, large ones will again be produced—small things produce small things again, and therefore no small potatoes should be planted; this practice is too prevalent, and may account for the many varieties and small potatoes met with in our markets. Who would not prefer a large mealy potatoe to a small one, that will take hours to boil soft, and then may only be fit to feed the cattle with.

For several years past I have adopted the plan of putting potatoes into the ground late in the fall, covering them with manure sometimes with tanners' waste bark, and always have succeeded in raising a fine early crop. Last fall I had taken up some as fine and large Mercer potatoes as any one could wish; they were covered with tan six inches thick the preceding fall; many weighed sixteen ounces. No particular care or attention was bestowed upon them through the summer, the tan not permitting any weeds to trouble them, or to draw out the nourishment from the earth, they had therefore all the benefit of the soil, kept moist and clean by the tan, for tan will keep the ground moist and clean, and in an improved state in the driest season. I have found the great advantage of it to my asparagus and strawberry beds, which are annually covered with it.

The potatoe I consider so valuable and indispensable a vegetable, and having never seen a suggestion in print of separating the potatoe and planting each by itself, that I have been induced to send you this imperfect and hastily drawn up communication. Perhaps you may think it worthy a place in the Farmers' Cabinet, and if so, should be pleased to hear that some of its patrons will try the experiment of planting separately each part of the tuber, believing that the potatoe may be much improved by a due regard to the above suggestions.

J. F. H.

He that lives on his money, is wiser than he that lives for his money.

Green Crops for Manure.

Green crops ploughed under for the purpose of enriching the soil, have been regarded from very ancient times, as valuable aids in agriculture, and are still recommended in no small degree, by the highest agricultural authorities. It is indeed unquestionable, that a crop of clover, for instance, turned under the soil, will afford a sufficient quantity of nutriment for a crop of wheat or rye, and also leave the soil (if not cross-ploughed) in a condition highly favorable to the growth of such a crop. The great question is, whether it would not be more advantageous to the farmer first to give his cattle the benefit of clover, and then turn under the remaining vegetable, together with the animal manure distributed over the soil, and thus secure two valuable objects instead of one. That such was the opinion of the late Judge Buel, (a more judicious adviser than whom has never contributed to the improvement of American Farming,) will appear from his *Cultivator*, Vol. 2. p. 13. "Vegetable matter when thus covered by the soil in its green and succulent state, readily undergoes decomposition, and forms a very enriching substance. The practice, however, is chiefly suited to the warmer countries where vegetation is rapid, and even there it argues a somewhat low state of the art, and is not the best way of producing decomposing matter. When we are able to raise green food of any kind, it is better that we apply it in the first place to the feeding of animals, for then it not only yields manure but performs another and not less useful purpose."—*Selected*

Mange, or Itch in Swine.

This is a disease which shows itself by making the animal restless and uneasy, and the eruption or formation of small pimples or watery excrescences, which spread rapidly, and from the rubbing of the animal, the itching or irritation is evidently severe. Pigs of only a few weeks old, appear to suffer most from it, as, if not cured, they will rub hair and skin off and most of them die.—When once introduced on a farm, like the foot rot in sheep, and similar complaints, it seems difficult to get rid of it, as the contagious or infectious matter appears to retain its reproductive powers for a long time. It frequently occasions much loss among the pig growers of England, and instances have occurred in this country, in which farmers have had the greater part of their stock destroyed by it. Brimstone, or sulphur, mixed with lard, and well rubbed in by the hand, may be considered a specific for all such eruptive diseases, and has been found effectual in this. It is also perfectly safe, which cannot be said of all the lotions, washes, &c. prescribed at times for such complaints.—*Cultivator*.

Do not buy a thing merely because it pleases the eye. When you have bought one fine thing, (says Dr. Franklin,) you must buy ten more, that your appearance may be all of a piece; but it is easier to suppress the first desire, than to satisfy all that follow it.

A FEW HINTS TO KEEP AWAY HARD TIMES.

—Rise early in the morning, and be diligent during the day, attending to your own business, and not worry yourself by your neighbor's concerns.

Give encouragement to home industry, and in all cases give preference to American manufacturers over foreign.

Instead of following the fashions of Europeans, cultivate a spirit of independence and decide for yourselves how your coats, hats, and boots shall be made.

Keep out of the streets, unless business calls you to transact that which you cannot do in your stores, shops or dwellings.

By all means keep away from drinking and gambling houses.

When you buy an article of clothing, study commendable economy; at the same time get a good article, and when made take particular care of it, and wear it out regardless of any change of fashion. Fashion is a great tyrant, and men are fools to be slaves to it.

Stay at home at nights, improve yourselves by reading, writing, or instructive conversation, and retire to your beds at an early hour.

Be kind to your relations, obliging to your friends, and charitable to all; and never permit your bills with the printer to run over a half-year.—*Selected*.

FIRE-PROOF CEMENT.—Take a quantity of water, proportioned to the surface of wood you may wish to cover, and add to it as much potash as can be dissolved therein. When the water will dissolve no more potash, stir into the solution, 1st. a quantity of flour paste of the consistency of common painter's size; 2d., a sufficient quantity of pure clay to render it of the consistency of cream. When the clay is well mixed, apply the preparation as before directed to the wood; it will secure it from the action of both fire and rain.—Subjected to violent heat, the wood thus saturated may be carbonated, but will never blaze.

SOILS IMPROVED BY DRAINING.—On wet lands manure should never be applied at all. Let such lands be thoroughly drained, and in most cases it will be found that no manure is needed; the soil being already supplied with a sufficiency of vegetable matter, which, having been kept in an insolated state by an excess of moisture, will, under more favorable circumstances, become decomposed, and furnish abundant support to vegetation. But when it is needful that manure should be applied to lands of this description, thorough draining should, in every case, precede the application, and then the expense will be remunerated.—*Selected*

CURRENTS.—A very good way of cultivating this fruit, is to take straight shoots of last year's growth, cut out all the eyes but three or four at the top, and stick them in the ground, say two feet apart. This causes them to grow singly, yielding larger fruit, and ripening earlier, than when growing in clusters from a root.—*Prairie Farmer*.

YOUNG HOUSEWIVES' DEPARTMENT.

COLD STARCH FOR LINEN.—There is economy in stiffening the collars and wristbands of shirts with unboiled starch. Take as much of the best raw starch as will fill half a common tumbler, or a half-pint cup. Fill it nearly up with very clear cold water. Mix it well with a spoon pressing out all the lumps, till you get it thoroughly dissolved and quite smooth. Next, add a tea-spoonful of salt to prevent its sticking. Then pour it into a broad earthen pan, and add gradually, a pint of clear cold water, and stir and mix it well. Do not boil it.

The shirts having been washed and dried, dip the collars and wristbands into this starch, and then squeeze them out. Between each dipping stir it up from the bottom with a spoon. Then sprinkle the shirts, and fold or roll them up with the collars and wristbands folded evenly, inside. They will be ready to iron in an hour.

This quantity of cold starch is sufficient for the collars and wristbands of a dozen shirts. Ladies' collars may be done also with cold starch, if the muslin is not very thin.—*Miss Leslie's Magazine*

TO MAKE GOOD VINEGAR.—Take five gallons of soft clear water, two quarts of whiskey, two quarts of West India molasses, and half a pint of the best fresh yeast. Lay a sheet of white foolscap paper at the bottom of a clean keg, and put in the mixture. Place it in the sun the first warm weather in June; and in six weeks it will be fit for use. If you make it in winter, keep it in a place where there is a coal-fire or a wood-stove. Put in the bung loosely, and do not stop it tight till the fermentation of the vinegar is over.

Much of the vinegar that is now offered for sale, is excessively and disagreeably sharp, overpowering the taste of everything with which it is combined. This vinegar is deleterious in its effects, and should never be used.

Oysters and pickled vegetables have been entirely destroyed or eaten up by it in a few hours, so that nothing of them was left but a few particles floating in the vinegar. It has latterly become so difficult to procure, from the shops such vinegar as is wholesome and palatable, that families would do well to make their own. There are many receipts for home made vinegar; all different, but most of them good and at least free from the pernicious articles which are now too frequently employed in making it for sale.—*Ib.*

FEW things are more wholesome than West India molasses. That which is called sugar-house molasses is just the contrary, on account of the articles used in refining brown sugar, and converting it into white. The West India molasses (like the brown sugar to which it belongs) comes from the pure juice of the cane, and is the kind that should always be used in families.—*Ib*

HOME.—Keep your store of smiles and your kindest feelings for home; give to the world only those which are to spare.

MISCELLANEOUS.

Important and True.

The Right way to Support a Newspaper.—Much depends upon the supporters of a newspaper, whether it is conducted with spirit and interest;—if they are negligent in their payments, the pride and ambition of the editor is broken down—he works at a thankless and unprofitable task—becomes discouraged and cheerless—his paper loses its pith and interest and dies. But on the contrary, if subscribers are of the right sort, if they are punctual liberal hearted fellows, always in advance on the subscription list, taking an interest in increasing the number of his subscribers, now and then speaking a good word for his paper, cheering him on in his course by smiles of approbation; with such subscribers as these I would foreswear comfort, ease, leisure,—everything that could possibly step between me and the gratification of every laudable desire on their part. I would know no other pleasure but their satisfaction. How much then can the supporters of a newspaper do, to make it interesting and respectable—indeed without concurring efforts on their part, the editor of a paper will not, cannot bestow the attention which is necessary to make it what it should be.—*Anon.*

Effects and Causes.

In the complicated and marvellous machinery of circumstances, it is absolutely impossible to decide what would have happened, as to some events, if the slightest disturbance had taken place in the march of those that preceded them. We may observe a little dirty wheel of brass spinning round upon its greasy axle; and the result is, that in another apartment, many yards' distance from it, a beautiful piece of silk issues from a loom, rivaling in its hues the tints of the rainbow.—There are myriads of events in our lives, the distance between which was much greater than that between this wheel and the ribbon, but where the connexion has been much more close. If a private country gentleman in Cheshire, (Eng.) about the year 1730, had not been overturned in his carriage, it is extremely probable that America instead of being a free republic at this moment, would continue a dependant colony of England.—This country-gentleman happened to be Augustine Washington, Esq., who was thus accidentally thrown into the company of a lady who afterwards became his wife, who emigrated with him to America, and in the year 1732, at Virginia, became the envied mother of GEORGE WASHINGTON the great.—*Lacon.*

ENCOURAGING.—An old farmer of Worcester county says, that in the year 1785, the snow held on to the depth of four feet till the 20th of April. It then suddenly thawed off and summer came on directly; and no year within his remembrance before or since has equalled that for productiveness.

Taking that as a precedent, we have abundant reason to anticipate a fruitful season, to compensate for the rigors of a backward spring the present year.—*Boston Paper.*

ASPARAGUS.—He who has a good bed of asparagus has his peas ready sown, and may pluck an earlier mess than he who sows in spring.

This plant is the best substitute for green peas, which it much resembles in taste, and great quantities are easily raised at small expense. As soon as the frost is out, some of our richest manure should be hoed in upon the beds, chopping all the ground over two or three inches deep. Then the soil may be stirred every day or two to keep the weeds down until the plant comes up; for you cannot well hoe it afterwards. If your manure was laid on the beds last fall, your asparagus will be earlier this spring. When you crop the tops, cut down even with the surface of the soil, or lower, for you want nothing but a tender stalk to boil.

THAT woman deserves not a husband's generous love, who will not greet him with smiles as he returns from the labors of the day; who will not try to chain him to his home by the sweet enchantment of a cheerful heart. There is not one in a thousand that is so unfeeling as to withstand such an influence, and break away from such a home.

NOTHING sets so wide a mark between the vulgar and the noble soul, as the respect and reverential love of womanhood. A man who is always sneering at woman, is generally a coarse profligate, or a coarse bigot.

AGENTS FOR THE FARMER.

Albion,	Wm. B. Olcott,
Bellevue,	David Judson,
Brighton,	N. Sullivan,
Coldwater,	Albert Chandler,
Detroit,	William Harsha,
Dexter,	D. C. Whitwood,
Eaton Rapids,	Amos Hamlin,
Flint,	J. D. Coleman,
Farmington,	C. Moore,
Franklin,	James Carhart,
Grand Rapids,	William Bemis,
Jonesville,	H. L. Hewitt,
Kalamazoo,	P. March,
Lima,	Oliver L. Cooper,
Leslie,	Henry Fiske,
Marshall,	D. Wallingford,
Mason Centre,	Jason K. Winchell,
Niles,	D. W. Mather,
Plymouth,	H. B. Holbrook,
White Pigeon,	Wm. O. Austin,
Walled Lake,	T. Deuel,
Ypsilanti,	E. C. Allen.

Traveling Agent—D. FITZGERALD.

1843.

LAWSON, HOWARD & CO.
PRODUCE, COMMISSION AND FORWARDING
MERCHANTS,

(At the Ware-house lately occupied by W. T. Pease, foot of Shelby street,) DETROIT;

Will make liberal cash advances, on Flour, Ashes and other Produce consigned to them for sale or shipment to Eastern Markets, and will contract for the transportation of the same.

6-ly

* * Also, will make like advances and contracts at the Ware-house of SACKETT & EVERETT, Jackson.

BANK NOTE TABLE.

CORRECTED FOR THE MICHIGAN FARMER.

Michigan.	
F. & M. B'k,	par
B'k of St. Clair,	par
Mich. Insurance Co.	par
Oakland County b'k,	par
River Rasin b'k,	par
Mer. b'k Jack. co	1 1-2 dis
Bank of Michigan	75 dis
State Scrip,	18 to 20 dis
Ohio.	
Specie paying bk's	1 dis
B'k of Cincinnati,	broke
Chillicothe,	10 dis
Cleveland,	55 dis
Com. Bank Sciota,	50 dis
Lake Erie,	30 dis
Far's B'k, Canton	60 dis
Granville,	30 dis
Hamilton,	60 dis
Lancaster,	50 dis
M. & Trader's Cin.	15 dis
Manhattan,	90 dis
Miami Exp. Co.	75 dis
Urbana B'king Co.	75 dis
Indiana.	
St. b'k & Branches,	3 dis
State Scrip,	50 dis
Illinois.	
State Bank,	65 dis
Shawnee Town,	65 dis
Kentucky.	
All good Banks	4 dis
Canada.	
Pennsylvania.	All
Specie paying,	1 dis
Erie,	6 dis
Wisconsin.	
Frisco and Marine Insu.	2 to 3 dis
France Co. Checks,	4 dis

YPSILANTI HORTICULTURAL GARDEN AND NURSERY.

This establishment now comprises fourteen acres, closely planted with trees and plants, in the different stages of their growth. Twenty thousand trees are now of a suitable size for setting.

The subscribers offer to the public a choice selection of Fruit Trees, of French German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, and Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Peonies, Double Dahlias, &c.—The subscribers have also a large Green House, well filled with choice and select plants in a good condition.

All orders by mail or otherwise, will be promptly attended to, and trees carefully selected and packed in mats; and if desired, delivered at the depot in Ypsilanti. Catalogues can be had at the Nursery.

E. D. & Z. K. KAY

Ypsilanti, April 25, 1843.

SILK GROWING!

The Subscriber will sell any quantity of *Morus Multicaulis* trees, of two and three years growth, and warranted of the best kind—at the reduced price of \$20.00 per thousand. Also, a quantity of *Silk Worm Eggs*, a great variety, and all of last years hatching—which will be sold very cheap and warranted.

JONATHAN KEENEY.

Detroit, April 8, 1843.

TO SILK GROWERS!

J. DEWEY of Napoleon, Jackson county, has for sale *Multicaulis* trees or cuttings, and *Silk Worm Eggs*—all of his own raising. Those wishing to obtain genuine articles, at reasonable prices, are requested to give him a call previous to purchasing elsewhere.

April 10, 1843.

PLOUGHS! PLOUGHS!!

The best patterns of Small and Breaking-Up Ploughs can be found at the Jackson Steam Furnace, Jackson, April 1, 1843.

3rd FARMER OFFICE—In the brick block adjoining American Hotel, Main street, Jackson.